Species		Historic range	Vertebrate popu-	Status	When listed	Critical habitat	Special rules
Common name	Scientific name	riistoric rarige	gered or threatened	Status	when iisted	habitat	rules
*	*	*	*	*	*		*

3. Amend § 17.95(b) by adding critical habitat for the piping plover (*Charadrius melodus*) in the same alphabetical order as this species occurs in § 17.11(h), to read as follows:

§ 17.95 Critical habitat-fish and wildlife.

* * * * * * * (b) *Birds*. * * * * * *

Piping Plover (Charadrius melodus) Wintering Habitat

1. The primary constituent elements essential for the conservation of wintering piping plovers are those habitat components that support foraging, roosting, and sheltering and the physical features necessary for maintaining the natural processes that support these habitat components. The primary constituent elements include intertidal beaches and flats (between annual low tide and annual high tide) and associated dune systems and flats above annual high tide. Important components of intertidal flats include sand and/or mud flats with no or very sparse emergent vegetation. In some cases, these flats may be covered or partially covered by a mat of blue-green algae. Adjacent non-or sparsely vegetated sand, mud, or algal flats above high tide are also important, especially for roosting piping plovers, and are primary constituent elements of piping plover wintering habitat. Such sites may have debris, detritus (decaying organic matter), or micro-topographic relief (less than 50 cm above substrate surface) offering refuge from high winds and cold weather. Important components of the beach/dune ecosystem include surfcast algae, sparsely vegetated backbeach and salterns (beach area above mean high tide seaward of the permanent dune line, or in cases where no dunes exist, seaward of a delineating feature such as a vegetation line, structure, or road), spits, and washover areas. Washover areas are broad, unvegetated zones, with little or no topographic relief, that are formed and maintained by the action of hurricanes, storm surge, or other extreme wave action.

2. Critical habitat does not include existing developed sites consisting of buildings, marinas, paved areas, boat ramps, exposed oil and gas pipelines and similar structures. Only those areas containing these primary constituent elements within the designated boundaries are considered critical habitat.

3. Below, we describe each unit in terms of its location, size, and ownership. These textual unit descriptions are the definitive source for determining the critical habitat boundaries. All distances and areas provided here are approximated. General location maps by State are provided at the end of each State's unit descriptions and are provided for general guidance purposes only, and not as a definitive source for determining critical habitat boundaries.

North Carolina (Maps were digitized using 1993 DOQQs, except NC-3 (1993 DRG)

Unit NC-1: Oregon Inlet. 404 ha (997 ac) in Dare County

This unit extends from the southern portion of Bodie Island to the northern portion of Pea Island. It includes all land south of the Oregon Inlet Marina and Fishing Center to 0.50 km (0.31 mile) south of the junction of Highway 12 and SR 1257. This unit includes lands from MLLW on the Pamlico Sound across (and including all land) to MLLW on Atlantic Ocean shoreline. Any emergent sandbars south and west of Oregon Inlet are included.

Unit NC–2: Cape Hatteras Point. 465 ha (1149 ac) in Dare County

The majority of the unit is within Cape Hatteras National Seashore. This unit extends south from the Cape Hatteras Lighthouse to the point of Cape Hatteras and then extends west 6.4 km (4.0 mi) along Hatteras Cove shoreline. The unit includes lands from the MLLW on the Atlantic Ocean and stops landward where densely vegetated habitat, not used by the piping plover, begins and where constituent elements no longer occur.

Unit NC-3: Clam Shoals. 28 ha (70 ac) in Dare County

The entire unit is owned by the State. This unit includes several islands in Pamlico Sound known as Bird Islands. This unit includes lands on all islands to the MLLW.

Unit NC-4: Hatteras Inlet. 516 ha (1273 ac) in Dare and Hyde Counties

The majority of the unit is surrounded by Cape Hatteras National Seashore, but is privately owned. This unit extends west from the end of Highway 12 on the western portion of Hatteras Island to 1.25 km (0.78 mi) southwest of the ferry terminal at the end of Highway 12 on Ocracoke Island. It includes all lands where constituent elements occur from MLLW on the Atlantic Ocean across to MLLW on Pamlico Sound. All emergent sandbars within Hatteras Inlet between Hatteras Island and Ocracoke Island are also included.

Unit NC-5: Ocracoke Island. 80 ha (197 ac) in Hyde County

The majority of this unit is within Cape Hatteras National Seashore. It includes the western portion of Ocracoke Island beginning 3.5 km (2.2 mi) west of the junction of Highway 12 and the local road (no name) extending west to Ocracoke Inlet. It includes all land from MLLW on the Atlantic Ocean across to MLLW on Pamlico Sound. All emergent sandbars within Ocracoke Inlet are also included.

Unit NC–6: Portsmouth Island-Cape Lookout. 3187 ha (7873 ac) in Carteret County

The entire unit is within Cape Lookout National Seashore. This unit includes all land to MLLW on Atlantic Ocean to MLLW on Pamlico Sound, from Ocracoke Inlet extending west to the western end of Pilontary Islands. This unit includes the islands of Casey, Sheep, Evergreen, Portsmouth, Whalebone, Kathryne Jane, and Merkle Hammock. This unit also extends west from the eastern side of Old Drum Inlet to 1.6 km (1.0 mi) west of New Drum Inlet and includes all lands from MLLW on Atlantic Ocean to MLLW on Core Sound.

Unit NC-7: South Core Banks. 552 ha (1364 ac) in Carteret County

The entire unit is within Cape Lookout National Seashore. This unit extends south from Cape Lookout Lighthouse, along Cape Lookout, to Cape Point and northwest to the northwestern peninsula. All lands from MLLW on the Atlantic Ocean, Onslow Bay, and Lookout Bight up to where densely vegetated habitat, not used by the piping plover, begins and the constituent elements no longer occur are included.

Unit NC–8: Shackleford Banks. 716 ha (1769 ac) in Carteret County

The entire unit is within Cape Lookout National Seashore. This unit is in two parts: (1) The eastern end of Shackleford Banks from MLLW of Barden Inlet extending west 2.4 km (1.5 mi), including Diamond City Hills, Great Marsh Island, and Blinds Hammock; and, (2) The western end of Shackleford Banks from MLLW extending east 3.2 km (2.0 mi) from Beaufort Inlet. The unit includes all land from MLLW to where densely vegetated habitat, not used by the piping plover, begins and where the constituent elements no longer occur and any emergent sandbars within Beaufort Inlet. This unit is bordered by Onslow Bay, Shackleford Slue, and Back Sound.

Unit NC-9: Rachel Carson. 445 ha (1100 ac) in Carteret County

The entire unit is within the Rachel Carson National Estuarine Research Reserve. This unit includes islands south of Beaufort including Horse Island, Carrot Island, and Lennox Point. This unit includes entire islands to MLLW.

Unit NC-10: Bogue Inlet. 143 ha (354 ac) in Carteret and Onslow Counties

The majority of the unit is privately owned, with the remainder falling within Hammocks Beach State Park. This unit includes contiguous land south, west, and north of Bogue Court to MLLW line of Bogue Inlet on the western end of Bogue Banks. It includes the sandy shoals north and adjacent to Bogue Banks and the land on Atlantic Ocean side to MLLW. This unit also extends 1.3 km (0.8 mi) west from MLLW of Bogue Inlet on the eastern portion of Bear Island.

Unit NC-11: Topsail. 451 ha (1114 ac) in Pender County and Hanover County

The entire area is privately owned. This unit extends southwest from 1.0 km (0.65 mi) northeast of MLLW of New Topsail Inlet on Topsail Island to 0.53 km (0.33 mi) southwest of MLLW of Rich Inlet on Figure Eight Island. It includes both Rich Inlet and New Topsail Inlet and the former Old Topsail Inlet. All land, including emergent sandbars, from MLLW on Atlantic

Ocean and sound side to where densely vegetated habitat, not used by the piping plover, begins and where the constituent elements no longer occur. In Topsail Sound, the unit stops as the entrance to tidal creeks become narrow and channelized.

Unit NC-12: Figure Eight Island. 134 ha (331 ac) in New Hanover County

The majority of the unit is privately owned. This unit extends south from the western end of Beach Road on Figure Eight Island to the northern end of Highway 74 on Wrightsville Beach. The unit includes Mason Inlet and the sand and mudflats northwest of the inlet from MLLW on Atlantic Ocean to where densely vegetated habitat, not used by the piping plover, begins and where the constituent elements no longer occur.

Unit NC–13: Masonboro. 61 ha (150 ac) in New Hanover County

The entire unit is within the North Carolina National Estuarine Research Reserve. This unit extends 1.1 km (0.70 mi) south from the MLLW of Masonboro Inlet on Masonboro Island. This unit includes all lands along the Atlantic Ocean, Masonboro Inlet, and Masonboro Sound from MLLW to where densely vegetated habitat, not used by the piping plover, begins and where the constituent elements no longer occur.

Unit NC-14: Carolina Beach Inlet. 374 ha (924 ac) in New Hanover County

The majority of the unit is within Myrtle Grove Sound on Masonboro Island and is owned by the North Carolina National Estuarine Research Reserve. It extends 1.80 km (1.12 mi) west along the south shoreline of Wolf Island from the mouth of the Altamaja sound. This unit extends south from 3.2 km (2.0 mi) north of MLLW at Carolina Beach Inlet on Masonboro Island to 1.1 km (0.70 mi) south of MLLW at Carolina Beach Inlet on Carolina Beach. It includes land from MLLW on Atlantic Ocean across and including lands to MLLW on the western side of Masonboro Island, excluding existing dredge spoil piles. Emergent sand bars within Carolina Beach Inlet are also included.

Unit NC–15: Ft. Fisher. 790 ha (1951 ac) in New Hanover and Brunswick Counties

This unit is within Ft. Fisher State Recreation Area and Zeke's Island Estuarine Reserve. This unit extends south from Ft. Fisher Islands (from the rocks), south of the ferry terminal, to approximately 0.8 km (0.5 mi) south of MLLW at Corn Cake Inlet on Smith Island. It includes all land (including Zeke's Island) from MLLW on Atlantic Ocean across to MLLW on the eastern side of the Cape Fear River.

Unit NC-16: Lockwood Folly Inlet. 36 ha (90 ac) in Brunswick County

The entire unit is on Oak Island (formerly known as the Town of Long Beach) and is privately owned. This unit extends from the end of West Beach Drive, west to MLLW at Lockwood Folly Inlet, including emergent sandbars south and adjacent to the island. This unit is includes land from MLLW on Atlantic Ocean across to MLLW adjacent to the Eastern Channel and the Intracoastal Waterway.

Unit NC-17: Shallotte Inlet. 120 ha (296 ac) in Brunswick County

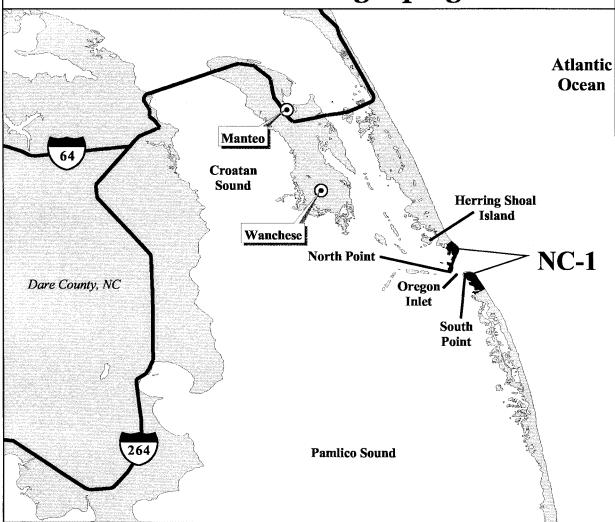
The entire unit is privately owned. This unit begins just west of Skimmer Court on the western end of Holden Beach. It includes land south of SR 1116, to where densely vegetated habitat, not used by the piping plover, begins and where the constituent elements no longer occur to the MLLW along the Atlantic Ocean. It includes the contiguous shoreline from MLLW to where densely vegetated habitat, not used by the piping plover, begins and where the constituent elements no longer occur along the Atlantic Ocean, Shallotte Inlet, and Intracoastal Waterway stopping north of Skimmer Court Road. The unnamed island and emergent sandbars to MLLW within Shallotte Inlet are also included.

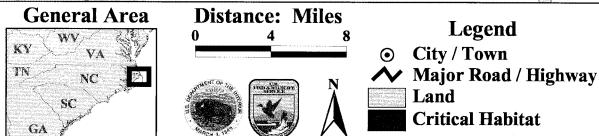
Unit NC–18: Mad Inlet. 112 ha (278 ac) in Brunswick County

The entire unit is privately owned. This unit extends west 1.2 km (0.75 mi) from the end of Main Street (SR 1177) on western Sunset Beach to the eastern portion of Bird Island and includes the marsh areas north of western Sunset Beach shoreline. The shoreline area begins at MLLW on the Atlantic Ocean and continues landward to where densely vegetated habitat, not used by the piping plover, begins and where the constituent elements no longer occur.

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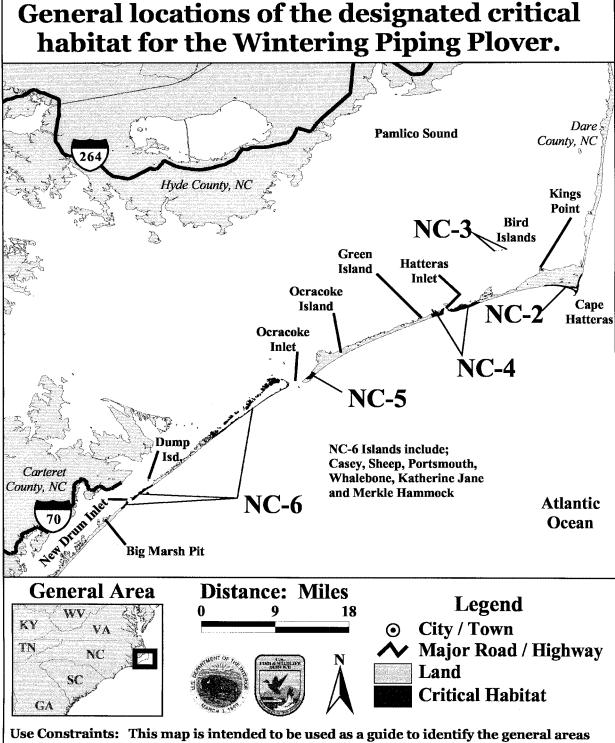
General locations of the designated critical habitat for the Wintering Piping Plover.





Use Constraints: This map is intended to be used as a guide to identify the general areas where Wintering Piping Plover critical habitat has been designated. Included within the designation of critical habitat are all land areas to the mean lower low water. Refer to the narrative unit descriptions as the precise legal definition of critical habitat.

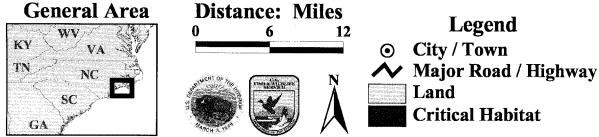
North Carolina Unit: 1



Use Constraints: This map is intended to be used as a guide to identify the general areas where Wintering Piping Plover critical habitat has been designated. Included within the designation of critical habitat are all land areas to the mean lower low water. Refer to the narrative unit descriptions as the precise legal definition of critical habitat.

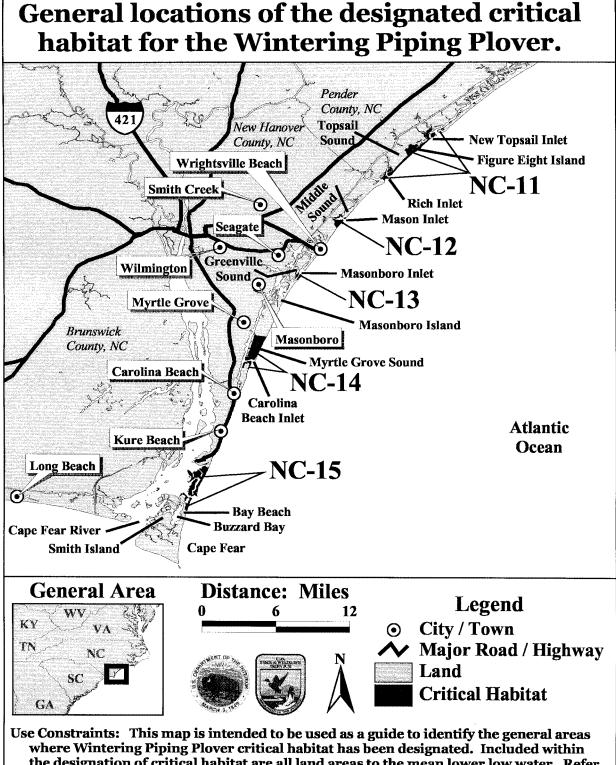
North Carolina Units: 2, 3, 4, 5 & 6

General locations of the designated critical habitat for the Wintering Piping Plover. Craven County, NC Carteret County, NC Jones County, NC Harkers Isld. Onslow Morehead City County, NC Atlantic Beach Beaufort Swansboro Bogue Sound Cedar Point Back Snd Beaufort $Sh_{eckleford}$ Inlet Cape NC-9 **Bogue Banks** Lookout **Bogue Inlet** Lighthouse NC-8 Lookout **Bight** Cape NC-10 NC-7 **Point** Atlantic Ocean General Area **Distance: Miles** Legend



Use Constraints: This map is intended to be used as a guide to identify the general areas where Wintering Piping Plover critical habitat has been designated. Included within the designation of critical habitat are all land areas to the mean lower low water. Refer to the narrative unit descriptions as the precise legal definition of critical habitat.

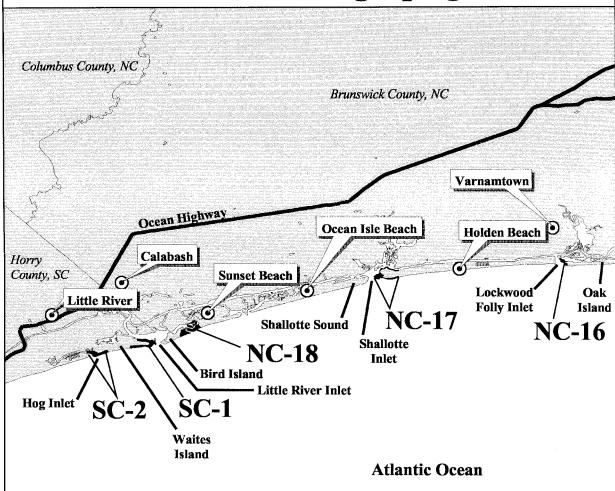
North Carolina Units: 7, 8, 9 and 10



the designation of critical habitat are all land areas to the mean lower low water. Refer to the narrative unit descriptions as the precise legal definition of critical habitat.

North Carolina Units: 11 to 15

General locations of the designated critical habitat for the Wintering Piping Plover.





Use Constraints: This map is intended to be used as a guide to identify the general areas where Wintering Piping Plover critical habitat has been designated. Included within the designation of critical habitat are all land areas to the mean lower low water. Refer to the narrative unit descriptions as the precise legal definition of critical habitat.

NC Units: 16 to 18, SC Units: 1 & 2